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ABSTRACT

A study compared effects of two forms of laboratory teaching experience (microteaching and reflective teaching) in an introductory teacher education course on students' views of themselves as teachers and their attitudes toward and perceptions of teaching. The population consisted of Ohio State University students in four sections of Agricultural Education 200, Introduction to Agricultural Education, during autumn 1979 and winter 1980 quarters. Study design was the non-equivalent control group design with sections being randomly assigned to one of the two treatments. Four instruments collected data: Myself as a Teacher, Teaching in General, When I Think about Teaching, and Student's Reaction to Laboratory Teaching Experience. Data analysis indicated no significant differences between posttest scores of students who participated in reflective teaching and those of students who participated in microteaching on (1) views of themselves as teachers, (2) attitudes toward teaching, (3) perceptions of role of teaching, and (4) attitudes toward type of laboratory teaching experience engaged in. There was little difference between pre- and post-test scores on the first three variables. Reflective teaching laboratory experience was found more satisfying than microteaching. (Appendixes include brief descriptions of the two types of laboratory teaching.) (YLB)

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THE EFFECTS OF LABORATORY TEACHING EXPERIENCE (MICROTEACHING AND REFLECTIVE TEACHING) IN AN INTRODUCTORY TEACHER EDUCATION COURSE ON STUDENTS' VIEWS OF THEMSELVES AS TEACHERS AND THEIR PERCEPTIONS OF TEACHING

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THE EFFECTS OF LABORATORY TEACHING EXPERIENCE (MICROTEACHING AND REFLECTIVE TEACHING) IN AN INTRODUCTORY TEACHER EDUCATION COURSE ON STUDENTS' VIEWS OF THEMSELVES AS TEACHERS AND THEIR PERCEPTIONS OF TEACHING*

Introduction

A major concern of teacher educators today is that of providing potential teachers with a variety of laboratory experiences wherein they can learn to teach. This concern was expressed in the 1976 report of the Bicentennial Commission of Education for the Profession of Teaching of the American Association of Colleges for Teacher Education. The standards issued for 1979 also stressed the importance and use of laboratory and clinical experience.

The laboratory provides prospective teachers with a place to perform as teachers, to investigate the results of their performance, and to propose ways to alter their actions and test the consequences of their actions. A laboratory can also be any setting where the prospective teacher engages in a systematic study of teaching and learning which contributes to an understanding of teaching and one's ability to perform as a teacher.

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*Information for this paper was obtained from the researcher's Ph.D. dissertation which was completed in The Department of Agricultural Education, The Ohio State University, Columbus, Ohio; August, 1980.

Teacher education programs rely heavily upon microteaching to provide prospective teachers in university and college teacher education courses with laboratory teaching experience. In reviewing the literature on the use of microteaching in preservice teacher education programs, the evidence suggests that microteaching not only provides students with preliminary experience and practice in teaching but also has a direct effect on their views of themselves as teachers and their attitudes toward and perceptions of teaching.

Reflective teaching is a recently developed method of providing on-campus laboratory teaching experience to preservice teacher education students. Preliminary findings on reflective teaching have not been conclusive enough to suggest that reflective teaching has a significant effect on preservice teachers' views of themselves as teachers and their attitudes toward and perceptions of teaching.

The primary purpose of this study was to compare the effects of two forms of laboratory teaching experience (reflective teaching and microteaching) in an introductory teacher education course on students' views of themselves as teachers and their attitudes toward and perceptions of teaching. There is a substantial volume of literature and research in teacher education concerning the effects of self concept, attitudes and perceptions on the teaching effectiveness of teachers. A primary concern of teacher educators should be that of providing prospective teachers with opportunities to develop positive views of themselves as teachers and

positive attitudes toward and perceptions of teaching. If laboratory teaching experiences such as microteaching and reflective teaching can provide the means by which teacher education students can develop positive self concepts, attitudes and perceptions, then every effort should be made to investigate the effects of laboratory teaching experiences on these variables.

PURPOSE AND OBJECTIVES

The major purpose of the study was to compare the effects of two forms of laboratory teaching experience (microteaching and reflective teaching) in an introductory teacher education course on students' views of themselves as teachers and their attitudes toward and perceptions of teaching. The study was designed to test the following hypothesis:

> There will be no difference between the scores of teacher education students participating in reflective teaching and teacher education students engaging in microteaching on posttests which measure students':
>
> 1. views of themselves as teachers,
> 2. attitudes toward teaching,
> 3. perceptions of the role of teahcing,
> 4. attitudes toward the type of laboratory teaching experience engaged in (microteaching or reflective teaching).

METHODOLOGY

Population

The experimentally accessible population was students at The Ohio State University who enrolled in Agricultural Education 200, Introduction to Agricultural Education, during the Autumn

Quarter, 1979 and Winter Quarter, 1980. The subjects consisted of undergraduates in the College of Agriculture and Home Economics. Two sections of the course were taught both quarters with students selecting the section most preferable for their schedules. Random assignment of subjects was not feasible. Therefore, the two intact groups were used with one group being randomly assigned microteaching and the other group randomly assigned reflective teaching. No effort was made to encourage students to enroll in either section, therefore minimizing differential recruitment as a possible threat to internal validity.

Since subjects were in intact sections of the course, generalizations can be made to students who enroll in Agricultural Education 200. Through replication of the study for two separate quarters, the possiblity of generalizing is improved. Both sections of the course were taught by the researcher.

Design and Instrumentation

The design for this study was the non-equivalent control group design (Campbell and Stanley, 1963). At the beginning of Autumn Quarter, 1979 and Winter Quarter, 1980 both sections of Agricultural Education 200, Introduction to Agricultural Education, were randomly assigned to the two levels of the treatment. The independent variable manipulated was the type of laboratory teaching experience. This variable represents the only fundamental difference in instruction provided students enrolled in the two sections. Both groups followed the same course outline except for the class session involving laboratory teaching experience and

had similar opportunities to participate in on-campus learning experiences.

One level of the independent variable was reflective teaching. Reflective teaching is a form of laboratory teaching experience whereby several teachers vie to accomplish the same objective with different groups of their peers (See Appendix A for a brief description of reflective teaching). The second level of the independent variable is microteaching. Microteaching is an instructional alternative whereby students practice teaching a "technical skill" (i.e., set induction) with a small group of their peers (See Appendix B for a brief description of microteaching).

The major dependent variables were scores on the posttests. Three of the four variables--students' views of themselves as teachers, students' attitudes toward teaching, and students' perception of the role of teaching--were measured both as pretests and posttests. The fourth variable, students' attitudes toward their laboratory teaching experience, was measured only during the posttest. Attitude scales were the instruments used to measure the dependent variables.

Four instruments were used to collect data. The selection of the instruments was based upon a review of literature related to each of the variables to be measured. The instruments include the following scales: "Myself as a Teacher", "Teaching in General", "When I Think About Teaching", and "Student's Reaction to Laboratory Teaching Experience".

Myself as a Teacher

The "Myself as a Teacher" instrument was used to measure the students' views of themselves as teachers at the beginning and end of the study during both the Autumn Quarter, 1979 and Winter Quarter, 1980. This instrument was developed by the researcher at The Ohio State University during the Winter and Spring Quarters, 1979. A panel of teacher educators, using the Adjective Check List by Gough and Heilbrum (1965), selected those adjectives they believed to be related to an effective teacher. A total of 28 adjectives were identified describing the characteristics of an effective teacher. The 28 adjectives were then paired with adjectives implying ineffective teacher behavior and randomly placed in a seven-point semantic differential measure with standard instructions. The students were asked to place a check mark on the rating scale for each adjectival-pair which best described their views of themselves as teachers.

The seven-point, 28 item, scale was quantified from 1 (Very Low) to 7 (Very High). Individual student scores were derived by totaling their responses to the 28 items and dividing by 28. An overall mean score for each treatment level was computed by using the mean score of each student in that group. The overall mean score represented the students' views of themselves as teachers. The overall mean score was interpreted as the higher the score the more positive their views of themselves as teachers. The mean reliability of this instrument was .89 using Cronbach's Alpha.

Teaching in General

The "Teaching in General" instrument was used to measure students' attitudes toward teaching at the beginning and end of the study during both Autumn Quarter, 1979 and Winter Quarter, 1980. This instrument was utilized by Stang (1967) with elementary education majors enrolled in an introductory science methods course at the University of Minnesota.

The 25 item Teaching in General instrument, was a semantic differential scale quantified from 1 (Very Low) to 7 (Very High). Individual student scores were derived by totaling their responses to the 25 items and dividing by 25. An overall mean score for each treatment level was computed by using the mean score for each student in that group. The overall mean score represented the students' attitudes toward teaching. The overall mean score was interpreted as the higher the score the more positive their attitudes toward teaching. The mean reliability of this instrument was .93 using Cronbach's Alpha.

When I Think About Teaching

"When I Think About Teaching" is an open-ended statement that was used to measure the students' perceptions of the role of teaching at the beginning and end of the study both Autumn Quarter, 1979 and Winter Quarter, 1980. This statement was used by Cruickshank (1979) to gather information about how teacher education students viewed the role of teaching.

Students were asked to write as many sentences as they could in a five minute period about what came to mind when they thought

about teaching. A panel of experts in teacher education ranked each student's statements (both pretest and posttest) according to how realistically each student had perceived the role of teaching. Each statement was rated on a seven-point scale ranging from 1 (Completely Inaccurate Perception) to 7 (Most Completely Accurate Perception). Individual student scores were derived by totaling the scores given to each of their responses by the panel of experts and dividing by the number of responses. An overall mean score for each treatment level was computed by using the mean score of each student in that group. The overall mean score represented the students' perception of the role of teaching. The overall mean score was interpreted as the higher the score the more realistic the students' perceptions of the role of teaching. Inter-rater reliability coefficients on the ratings given (both pretest and posttest) by the panel of experts to the students' responses to "When I Think About Teaching" were calculated using the reliability formula discussed by Ebel (1979). Inter-rater reliability checks revealed a mean reliability of .82.

Student's Reaction to Laboratory Teaching Experience

The "Student's Reaction to Laboratory Teaching Experience" instrument was used to measure the students' attitudes toward their laboratory teaching experience at the conclusion of the study both Autumn Quarter, 1979 and Winter Quarter, 1980. This instrument was originally developed by Klingstedt (1976) at Texas Tech University. It is a forced-choice checklist with a "Very true, somewhat true, slightly true, not true" format. Klingstedt

utilized the instrument to determine how relevant students felt their videotaped microteaching experience was.

In this study a four-point scale was applied to the 17 statements on the checklist for scoring purposes. The four-point Likert Scale provided the following values: 4 (very true), 3 (somewhat true), 2 (slightly true), and 1 (not true). Individual student scores were derived by totaling their responses to the 17 items and dividing by 17. An overall mean score for each treatment level was computed by using the mean score of each student in that group. The overall mean score represented the students' attitudes toward their laboratory teaching experience. The overall mean score was interpreted as the higher the score the more positive their attitudes toward their laboratory teaching experience. The mean reliability of this instrument was .72 using Cronbach's Alpha.

Additional data concerning personal satisfaction of teachers and learners was also collected to see if the type of laboratory teaching experience (reflective teaching or microteaching) would have a significant affect on how satisfied teachers were with their teaching performance and how satisfied the learners were with the lessons taught to them. It should be noted that this data collected was not a part of the research hypothesis. After each teaching experience (reflective teaching or microteaching) the teacher completed a teacher satisfaction form and the learners completed a learner satisfaction form. The teacher satisfaction form consisted of one statement (As a teacher how satisfied

were you with this lesson?) to which the teachers checked the appropriate response of either Very Satisfied, Satisfied, Unsatisfied or Very Unsatisfied. For scoring purposes a four-point scale ranging from 4 (Very Satisfied) to 1 (Very Unsatisfied) was used. The same format was applied to the learner satisfaction form except the statement read; As a learner, how satisfied were you with this lesson?

Major Findings

To control for possible confounding effects of the pretests and to evaluate the effects of the two levels of the treatment (reflective teaching and microteaching), sections 1, 2, and 3 of the hypothesis (page 4) were analyzed using analysis of covariance. Section 4 of the hypothesis was analyzed by a t-test.

Students' Views of Themselves as Teachers

Mean pretest scores, reported in Table 1, indicate that subjects both quarters scored in the high category (5.50-6.49) on their views of themselves as teachers therefore leaving little room to improve on the posttests. Analysis of covariance with pretest scores as the covariate indicated that the reflective teaching group Autumn Quarter, 1979 scored significantly higher than the Autumn Quarter, 1979 microteaching group on the posttest which measured their views of themselves as teachers, while the reflective teaching group and the microteaching group Winter Quarter, 1980 did not differ significantly on the posttest measuring their views of themselves as teachers (Table 1). The significant difference between the Autumn Quarter, 1979 treatment groups' posttest

scores on their views of themselves as teachers is partially the result of the microteaching group's adjusted posttest score being lower than the pretest mean score. Although the Autumn Quarter, 1979 groups showed a statistically significant difference on their views of themselves as teachers, the difference is only .26 points on a seven point scale.

Students' Attitudes Toward Teaching

Mean pretest and posttest scores, reported in Table 2, indicate that on a scale ranging from 1 (very low) to 7 (very high) subjects both quarters scored in the category identified as high (5.50-6.49) on their attitudes toward teaching. However, there was a decrease in the mean posttest scores in both treatment groups. Autumn Quarter, 1979 and a slight decrease in the mean posttest scores of the treatment groups Winter Quarter, 1980. Analysis of covariance with pretest scores as the covariate indicated that the reflective teaching group and microteaching group for both Autumn Quarter, 1979 and Winter Quarter, 1980 did not differ significantly on their attitudes toward teaching (Table 2).

Students' Perception of the Role of Teaching

Mean pretest and posttest scores, reported in Table 3, indicate that subjects both quarters scored in the slightly accurate (3.50-4.49) preception range on their perception of the role of teaching; however, there was a slight decrease in the mean posttest score of the reflective teaching group Winter Quarter, 1980.

TABLE 1

SUMMARY DATA AND ANALYSIS OF COVARIANCE ON "MYSELF AS A TEACHER"

	Autumn Quarter, 1979						Winter Quarter, 1980					
		Pretest		Unadjusted Posttest		Adjusted Posttest		Pretest		Unadjusted Posttest		Adjusted Posttest
Treatment Level	n	Mean	S.D.	Mean	S.D.	Mean	n	Mean	S.D.	Mean	S.D.	Mean
Reflective Teaching	28	5.70	.47	5.80	.53	5.81	41	5.76	.53	5.88	.66	5.83
Microteaching	15	5.74	.41	5.57	.56	5.55	31	5.64	.62	5.63	.66	5.69

Source	df	SS	MS	F	p	df	SS	MS	F	p
Pretest Scores	1	7.243	7.243	63.526	.01	1	19.172	19.172	112.617	.01
Treatment	1	.693	.693	6.080	.02	1	.338	.338	1.984	.16
Residual	40	4.561	.114	------		69	11.747	.170	-------	

TABLE 2

SUMMARY DATA AND ANALYSIS OF COVARIANCE ON "TEACHING IN GENERAL"

	Autumn Quarter, 1979						Winter Quarter, 1980					
		Pretest		Unadjusted Posttest		Adjusted Posttest		Pretest		Unadjusted Posttest		Adjust Postte
Treatment Level	n	Mean	S.D.	Mean	S.D.	Mean	n	Mean	S.D.	Mean	S.D.	Mean
Reflective Teaching	28	5.72	.55	5.64	.76	5.67	41	5.87	.81	5.92	.88	5.82
Microteaching	15	5.82	.57	5.64	.64	5.58	31	5.75	.59	5.68	.72	5.74

Source	df	SS	MS	F	p	df	SS	MS	F	p
Pretest Scores	1	8.050	8.050	24.530	.01	1	31.755	31.755	138.881	.01
Treatment	1	.075	.075	.299	.64	1	.314	.314	1.374	.25
Residual	40	13.127	0.328	------		69	15.777	.229	-------	

Analysis of covariance with pretest score as the covariate indicated that the reflective teaching groups and microteaching groups for both Autumn Quarter, 1979 and Winter Quarter, 1980 did not differ significantly on their perception of the role of teaching (Table 3).

Students' Attitudes Toward Their Laboratory Teaching Experience

Mean posttest scores, reported in Table 4, indicate that subjects both quarters scored in the positive category (2.50-3.49) on their attitudes toward their laboratory teaching experience. Analysis of the posttest scores using the t-test indicated that the reflective teaching groups for both Autumn Quarter, 1979 and Winter Quarter, 1980 did not differ significantly from the microteaching groups on their attitudes toward their laboratory teaching experience (Table 4).

Teacher Satisfaction and Learner Satisfaction

Additional data collected concerning teacher satisfaction (Table 5) and learner satisfaction (Table 6) revealed that subjects in the reflective teaching groups Autumn Quarter, 1979 ($p = .01$) and Winter Quarter, 1980 ($p = .01$) reported a significantly higher degree of satisfaction with their teaching performance when compared with subjects in the microteaching groups (Table 5). This finding is of significance because microteaching's main focus is on the teacher and reflective teaching's main focus is on the learner.

Subjects in the reflective teaching groups also reported a higher level of learner satisfaction than subjects in the microteaching groups. This difference was significant ($p = .001$) for the Winter Quarter, 1980 treatment groups (Table 6).

TABLE 3

SUMMARY DATA AND ANALYSIS OF COVARIANCE ON STUDENTS' "PERCEPTIONS OF THE ROLE OF TEACHING"

	Autumn Quarter, 1979						Winter Quarter, 1980					
		Pretest		Unadjusted Posttest		Adjusted Posttest		Pretest		Unadjusted Posttest		Adjusted Posttest
Treatment Level	n	Mean	S.D.	Mean	S.D.	Mean	n	Mean	S.D.	Mean	S.D.	Mean
Reflective Teaching	28	3.80	.67	4.13	.55	4.18	41	4.16	.47	4.10	.43	4.09
Microteaching	15	4.07	.54	4.16	.59	4.07	31	4.12	.38	4.22	.45	4.23

Source	df	SS	MS	F	p	df	SS	MS	F	p
Pretest Scores	1	3.865	3.865	16.946	.01	1	3.243	3.243	21.762	.01
Treatment	1	.110	.110	.481	.49	1	.351	.351	2.357	.13
Residual	40	9.124	.228	------		69	10.282	.149	------	

TABLE 4

MEANS AND STANDARD DEVIATIONS OF SCORES RECEIVED ON THE POSTTEST "LABORATORY TEACHING EXPERIENCE" BY LEVELS OF TREATMENT AUTUMN QUARTER, 1979 AND WINTER QUARTER, 1980

Treatment Level	Mean	S.D.	t	p
Autumn Quarter, 1979				
Reflective Teaching (n=28)	3.26	.44	1.36	.18
Microteaching (n=15)	3.42	.21		
Winter Quarter, 1980				
Reflective Teaching (n=14)	3.29	.38	.56	.55
Microteaching (n=31)	3.33	.23		

TABLE 5

PERCENTAGE DISTRIBUTION OF SUBJECTS BY LEVEL OF SATISFACTION OF THEIR TEACHING PERFORMANCE

Level of Satisfaction	Autumn Quarter, 1979			Winter Quarter, 1980		
	Reflective Teaching (n=28)	Microteaching (n=15)	All Students (n=43)	Reflective Teaching (n=41)	Microteaching (n=31)	All Students (n=72)
1.49 or Less (Very Unsatisfied)	3.6	0.0	2.3	0.0	3.2	1.4
1.50 - 2.49 (Unsatisfied)	10.7	26.7	16.3	4.9	32.3	16.7
2.50 - 3.49 (Satisfied)	39.3	73.3	51.2	53.7	64.5	58.3
3.50 - 4.00 (Very Satisfied)	46.4	0.0	30.2	41.5	0.0	23.6
	Chi Square = 11.24	p = .01		Chi Square = 22.47	p = .01	

TABLE 6

PERCENTAGE DISTRIBUTION OF SUBJECTS BY LEVEL OF SATISFACTION AS LEARNERS

Level of Satisfaction	Autumn Quarter, 1979			Winter Quarter, 1980		
	Reflective Teaching (n=28)	Microteaching (n=15)	All Students (n=43)	Reflective Teaching (n=41)	Microteaching (n=41)	All Studen (n=72
1.49 or Less (Very Unsatisfied)	----	----	----	----	----	----
1.50 - 2.49 (Unsatisfied)	----	----	----	----	----	----
2.50 - 3.49 (Satisfied)	36.7	60.0	44.2	22.0	61.3	38.9
3.50 - 4.00 (Very Satisfied)	64.3	40.0	55.8	78.0	38.7	61.1
	Chi Square = 2.40 p = .13			Chi Square = 11.35 p = .001		

The analysis of data for both Autumn Quarter, 1979 and Winter Quarter, 1980 indicated that there were no significant differences between posttest scores of students who participated in reflective teaching and posttest scores of students who participated in microteaching on:

1. views of themselves as teachers,
2. attitudes toward teaching,
3. perceptions of the role of teaching,
4. attitudes toward the type of laboratory teaching experience engaged in (microteaching or reflective teaching).

These findings support the hypothesis generated by the researcher. However, on additional data collected during the study it was found that reflective teaching students were more satisfied with their teaching performance and were more satisfied as learners than the microteaching students. Another interesting finding from this study was the amount of time spent by the researcher to conduct the reflective teaching and microteaching sessions. A total of 8 hours was spent with the reflective teaching students during their laboratory teaching experience Autumn Quarter, 1979 and Winter Quarter, 1980 while a total of 36 hours was spent with the microteaching students during their laboratory teaching experience Autumn Quarter, 1979 and Winter Quarter, 1980.

It was concluded that there was little difference between students' pretest and posttest scores on their views of themselves as teachers, attitudes toward teaching and perceptions of the role of teaching. Perhaps there was little difference between

students' pretest and posttest scores on these variables because of the short amount of time students spent participating in their laboratory teaching experience (4 hours). Even though Klausmeir and Ripple (1971) stated that direct experience with attitude objects is highly effective in initial attitude acquisition as well as attitude modification, Stern and Keislar (1975) contended that attitude change involves a long process during which a variety of experiences are encountered. Four hours of reflective teaching or microteaching appear to be of too short a duration to effect a change in students' views of themselves as teachers their attitudes toward teaching and their perceptions of the role of teaching.

Students entered the study with relatively high scores on their attitudes toward teaching. The decrease in posttest scores on students' attitudes toward teaching may indicate that reflective teaching and microteaching give students a more realistic look at teaching.

Although the students entered the study at a relatively high level on the scales which measured their views of themselves as teachers and their attitudes toward teaching, it is important to note that the maximum values for the scales were not achieved by subjects on the posttests.

It was also concluded that reflective teaching laboratory experience is more satisfying to students as teachers and learners than is microteaching.

IMPLICATIONS

In spite of considerable improvements in laboratory experiences for potential teachers, a major concern of teacher educators today remains the ability to provide potential teachers with a variety of laboratory experiences wherein they can learn to teach. This concern was expressed in the report of the Bicentennial Commission on Education for the Profession of Teaching of the American Association of Colleges for Teacher Education.

> The teacher education classroom should be a laboratory for the study and development of teaching knowledge and skills. This laboratory should be expanded to include instructional procedures such as microteaching, simulation, modeling and demonstration. These procedures help students to confront a controlled reality by concentrating on particular teaching-learning behaviors until they attain adequate levels of skills and confidence. When students do encounter the complexity of a regular classroom, they will have experienced a planned series of teaching acts in a minimally threatening environment, with immediate feedback and experienced supervision. (Howsam, Corrigan, Denemark, and Nash, 1976, p. 93)

The National Council for Accreditation of Teacher Education in its national standards issued for 1979 also stressed the importance and use of laboratory and clinical experience (National Council for Accreditation of Teacher Education, 1979). Both microteaching and reflective teaching are forms of laboratory experience which by definition provide scaled-down teaching practice followed by feedback and analysis.

It is recommended that further research be conducted on reflective teaching and microteaching using the dependent variables

investigated in this study with special consideration given to the amount of time spent participating in these two forms of laboratory teaching experience. The primary focus should be a determination of whether length of time spent participating in reflective teaching and microteaching has a significant effect on the posttest scores of the dependent variables.

It is also recommended that alternative means of assessing the dependent variables of this study be sought which provide more room for measuring change in students' perceptions and attitudes between pretest and posttest.

Although reflective teaching involves peer teaching whereby several teachers vie to accomplish the same objective with different groups of pupils composed of peers and microteaching provides teachers the opportunity to practice technical skills (i.e., set induction), it is recommended that research be conducted to determine to what extent reflective teaching and microteaching develop those kinds of cognitive skills or behaviors which are necessary for effective teaching.

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APPENDIX A

A Brief Description of Reflective Teaching

People ask, What is Reflective Teaching?

Begin with the idea of peer teaching--that is, one member of a small group of peers teaching something to the other members of the group. Call the person teaching the designated teacher.

Multiply the number of small peer groups by four or five.

Give each designated teacher from each peer group a common Reflective Teaching Lesson or RTL which requires them all to teach toward a common measurable objective.

Give the designated teachers opportunity to prepare their lesson.

Give the designated teachers opportunity to teach their lesson to one of the peer groups.

Give the designated teacher and the learner an opportunity to evaluate the lessons in terms of student learning and satisfaction. Engage them in examining their relative success in teaching and learning. Let them consider why they may have been relatively successful, what they may have experienced which might help them to understand and to perform teaching better and, whether they seem to enjoy teaching.

People ask, So what's new? Not peer teaching. But Reflective Teaching Lessons or RTLs are new because:

They provide teaching practice with feedback, and they permit a designated teacher to teach and to answer the question, When I teach do students learn?

They permit several designated teachers to pursue their teaching objectives in very unique, personal ways and to share the ways and the results,

They permit identification and consideration of variables involved in teaching and learning that may have contributed to relative success or lack of it,

They provide practice in five areas of direct teaching (demonstrating, describing, designating, explaining, and fostering changes in attitude) and practice in interactive teaching or group discussion,

They provide an additional alternative for on-campus teaching experience, and

They facilitate students' response to the questions, Should I become a teacher? and, How can I become a more effective teacher?

Donald R. Cruickshank
The Ohio State University
September 1978

APPENDIX B

A Brief Description of Microteaching

Microteaching is a scaled-down version of a real teaching situation in terms of time and number of students taught and introduces prospective teachers to the complexity of teaching. It was conceived of and first put into practice at Stanford University in the summer of 1963. The technique evolved from a practice in teacher education known as the demonstration lesson. One type of demonstration lesson was the practice lesson taught by preservice education students, usually to peers in their methods classes.

Video taping was added as a means of improving feedback and retaining a record of progress in teaching ability. Video taping is not an essential part of microteaching, but it enhances the technique and makes it a more powerful instructional tool.

The purpose of microteaching in Agricultural Education 200 is to provide an opportunity for teacher trainees to obtain a liberal amount of practice, under optimum conditions and without endangering the learning of pupils. When trainees engage in a microteaching lesson in their subject area they focus upon a specific aspect of teaching (i.e. demonstration). The trainees prepare their lessons to be taught and present them to a small group of their peers (normally 4 - 5 people). Each lesson usually lasts anywhere from 10 to 15 minutes in length. Upon completion the trainees receive a critique of their presentations and a chance to view their performances on video tape.

Reflective Teaching Lesson 5

Practicing Demonstrating Behavior
(The Bowline Task)

Description of your Reflective Teaching Task

You are one of several members of your class chosen to teach this short lesson to a small group of your classmates. Plan to teach it in a way that you believe both student learning and satisfaction will result.

Your lesson will be taught on _____.

Introduction to the Lesson

Teachers demonstrate--that is they show learners how to do something. The following are examples of teacher's demonstrating behavior.

(1) A production agriculture teacher demonstrates how to adjust the planting depth on an 8-row corn planter.
(2) A horticulture teacher demonstrates how to test the acidity of a soil.
(3) An agriculture mechanics teacher demonstrates how to use the electric are welder on a broken piece of machinery.
(4) An agri-business teacher demonstrates how to figure depreciation on an old tractor.
(5) A natural resource/conservation teacher demonstrates how to stuff and mount a squirrel.

Below is an objective that requires you to demonstrate something to a small group of your peers. The task was selected because your success in accomplishing it probably will not be dependent on your knowledge of some academic subject or previous experience you might have had.

Your Objective

Your goal is to get as many of your learners as possible to be able to tie a bowline knot. You will have ten minutes in which to accomplish your objective.

Materials

(1) The bowline knot (attached)
(2) One two foot length of ¼ inch of clothesline for each learner

Special Conditions and Limitations

None

Ending the Lesson

(1) Notify the college instructor when you think all your learners can demonstrate how to tie a bowline knot. The instructor will record the time.

(2) Have each learner tie a bowline, one at a time and record the scores in the chart below. Five minutes will be allowed for testing. Only one test is allowed for each learner. Give the learner a score of 1 if he or she ties the knot without any error. Give a zero if any error is made. After the learners have been tested, total the number of tallies or checkmarks in both the 1 and 0 columns.

Learner's Name	1	0
1.		
2.		
3.		
4.		
5.		
Totals		

Attachment "The Bowline Knot"